ABSTRACT OF DISCLOSURE

An imaging system for imaging an object onto an image plane. An optical arrangement forms an intermediate image of the object at an intermediate plane with a first value of axial resolution. The imaging system also includes a digital processor configured to process the intermediate image to form a final image of the object at the image plane. The imaging system further includes a specially designed optical element that cooperates with the optical arrangement and the digital processor to define a second value of axial resolution that is greater than the first value.